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If the Examiner has any questions regarding this response, he is invited to call the undersigned at the number indicated below.

Respectfully submitted,
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VERSION WITH MARKINGS TO SHOW CHANGES MADEIn the Claims:

Claims 2-5, 7-8, 18-23, and 26-46 have been canceled.

New Claims 47-64 have been added as follows:

--47. (New) A process for obtaining a protein heterologous to yeast as a product of yeast expression, which process comprises:

- (a) transforming a yeast organism with an expression vehicle comprising a promoter sequence for yeast alpha factor operably connected to a DNA sequence encoding a protein heterologous to the yeast organism;
- (b) culturing the transformed organism; and
- (c) recovering the protein from the culture.

--48. (New) A process for obtaining a protein heterologous to yeast as a product of yeast expression, which process comprises:

- (a) transforming a yeast organism with an expression vehicle comprising a DNA sequence encoding a pre-pro peptide of yeast alpha factor operably connected in translation reading frame to a DNA sequence encoding a protein heterologous to the yeast organism;
- (b) culturing the transformed organism; and
- (c) recovering the protein from the culture.

--49. (New) A process for obtaining a protein heterologous to yeast as a product of yeast expression, processing and secretion, which process comprises:

- (a) transforming a yeast organism with an expression vehicle comprising a DNA sequence encoding a pre-pro peptide of yeast alpha factor operably connected in translation reading frame to a DNA sequence encoding a protein heterologous to the yeast organism;
- (b) culturing the transformed organism; and
- (c) recovering the protein from the culture.

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--50. (New) A process for secreting a protein heterologous to yeast into the supporting medium, which process comprises:

(a) transforming a yeast organism with an expression vehicle comprising a DNA sequence encoding a pre-pro peptide of yeast alpha factor operably connected in translation reading-frame to a DNA sequence encoding a protein heterologous to the yeast organism;

(b) culturing the transformed organism; and

(c) recovering the protein from the culture.--

--51. (New) The process of Claim 50, wherein said DNA sequences are under the control of the alpha factor promoter.--

--52. (New) A yeast expression vehicle comprising a DNA sequence of the promoter for yeast alpha factor operably connected to a DNA sequence encoding a protein heterologous to the yeast organism.--

--53. (New) The expression vehicle of Claim 52, further comprising a DNA sequence encoding a pre-pro peptide of yeast alpha factor operably linked in translation reading frame upstream to the DNA sequence encoding a mature protein heterologous to the yeast organism.--

--54. (New) A yeast expression vehicle comprising a DNA sequence encoding a pre-pro peptide of yeast alpha factor operably linked in translation reading-frame to a DNA sequence encoding a mature protein heterologous to the yeast organism.--

--55. (New) The expression vehicle of Claim 52, wherein the DNA encoding the heterologous protein encodes a protein selected from the group consisting of human interferon, bovine interferon, tissue plasminogen activator, and rennin.--

--56. (New) The expression vehicle of Claim 53, wherein the DNA encoding the heterologous protein encodes a protein selected from the group consisting of human interferon, bovine interferon, tissue plasminogen activator, and rennin.--

--57. (New) The expression vehicle of Claim 54, wherein the DNA encoding the heterologous protein encodes a protein selected from the group consisting of human interferon, bovine interferon, tissue plasminogen activator, and rennin.--

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--58. (New) A yeast organism transformed by the expression vehicle of Claim 52.--

--59. (New) A yeast organism transformed by the expression vehicle of Claim 53.--

--60. (New) A yeast organism transformed by the expression vehicle of Claim 54.--

--61. (New) The protein produced by the process of Claim 47.--

--62. (New) The protein produced by the process of Claim 48.--

--63. (New) The protein produced by the process of Claim 49.--

--64. (New) The protein produced by the process of Claim 50.--